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Developments Since the Market Crash of October 1987

Summary Statement of
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Comptroller General
of the United States

Before the
Senate Committee on Agriculture,
Nutrition and Forestry
United States Senate

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Mr. Chairman and Members of the Committee:

We are pleased to be here to report on the progress being made by Federal and self regulatory organizations in response to the market crash last October. As you requested, we will address specifically:

-- The progress made in developing a coordinated intermarket contingency plan and other changes to improve market coordination and operations.

-- The progress made in enhancing the capacity of the New York Stock Exchange's order processing systems and an analysis of the Exchange's capability to identify program trading.

-- The differences in methodologies used to evaluate the effects of program trading by the various study groups.

PROGRESS MADE SINCE THE CRASH

Controversy persists about the causes of the October crash as well as the exact nature of the problems and solutions. But one thing all the groups who have studied the crash agree on is that the futures and equity markets are linked. Thus, any changes that are made must recognize this reality.

Even though there is agreement that the equity and futures markets are linked, controversy persists over the uses, benefits

and risks of derivative stock index products. The Board of Governors of the Federal Reserve System, along with the SEC and CFTC, found in a 1984 Study of the Effects on the Economy of Trading in Futures and Options that derivative products serve a useful economic purpose. However, the study cautioned that the potential existed for disruptive trading in the index product markets that could lead to speculative bubbles that could burst with destablizing results. In light of the events of last October, I believe the Federal Reserve should revisit its findings. We would be glad to review the results of the Federal Reserve's new efforts.

In recent months, the Congress has urged that the executive branch and the exchanges develop the leadership to resolve the controversies that exist over solutions to the problems identified in studies of the market crash. But the federal and self regulators have sometimes worked at cross purposes where disagreements existed. Despite the linkages that exist between these markets, some changes are being made unilaterally in the futures and equity markets that could disrupt rather than support their workings.

I am somewhat encouraged by the recent formation of the President's Working Group on Financial Markets. This group

offers the potential to resolve intermarket regulatory disagreements. It has held a number of meetings and I understand that it has begun to tackle some of the more difficult issues associated with intermarket regulation. I look forward to their mid-May report.

At that time we will learn if the working group has been able to come up with a consensus solution to the problems that surfaced on October 19. Because that solution has not yet emerged, the Congress should continue to keep pressure on the various parties through continued oversight so that progress toward a truly coordinated solution remains on track. We will review the findings and proposals of the President's Working Group and are prepared to continue assisting the Congress in its oversight of market regulation.

A number of changes have been initiated since the crash. Many of the changes that have occurred are designed to improve communications and data sharing, enhance financial and market surveillance, improve clearing and settlement procedures, enhance capital adequacy, improve market making systems, and assure credit availability.

However, other important changes with significant intermarket implications have occurred despite considerable disagreement over the wisdom of those changes. These changes may be counter-

productive, and have the distinct potential to destabilize markets. In these cases, the federal and self regulators have not been able to resolve the conflicts.

One example of this problem is found in the debate over daily price limits. The futures markets have adopted daily price limits on their index products to limit price swings. The stock markets have not adopted price limits as a means of controlling large single-day price changes, though we understand that there has been discussion of the advisability and feasibility of such a change by the President's Working Group and the exchanges. There is considerable controversy over the concept of price limits or other circuit breakers. CFTC officials said that although price limits have disadvantages, they can prevent markets from overreacting during periods of uncertainty. SEC officials believe that price limits in stock markets can deprive investors of the ability to sell when they need to and may also induce panic.

This issue needs to be resolved one way or the other quickly. The use of price limits on futures index products and their absence in the equity markets create the distinct possibility of an adverse transfer of buying or selling pressure from the futures to the equity markets the next time there is a major market price adjustment. This type of uncoordinated change, if

allowed to persist, threatens to disrupt rather than stabilize markets.

Another area of controversy involves the New York Stock Exchange's recently approved restriction on use of the Designated Order Turnaround system for index arbitrage when the Dow Jones Industrial Average moves 50 points, up or down, in a day. The New York Stock Exchange believes that this change will dampen volatility. The Chicago Board of Trade and the Chicago Mercantile Exchange do not agree, and the CFTC has indicated that the change could substantially disrupt the linkage between the stock and futures markets. This, or any other change to market operations that offers even the possibility of destabilizing markets must be evaluated carefully, with disagreements resolved as quickly as possible.

The lack of an intermarket decision-making structure to resolve these problems is also inhibiting the development of a unified intermarket contingency plan. Some useful changes to improve communications such as an intermarket hotline, and the crisis management telephone book should prove useful in alleviating some of the confusion and uncertainty which occurred last October.

However, a very important part of a good contingency plan--namely, a clear delineation of intermarket emergency decision-making duties and responsibilities--is still not in place.

Decisions about what constitutes a market emergency, the types of actions to be taken and who will make the decisions are still not clear. As long as these issues are not resolved, progress toward completing a good contingency plan will be slowed. We believe the President's Working Group should produce such a plan by its mid-May reporting date.

NEW YORK STOCK EXCHANGE COMPUTER ENHANCEMENTS

Let me now highlight the results of our review of the New York Stock Exchange's computer systems. We are issuing today two reports which address this subject.

The New York Stock Exchange has made a number of upgrades to its order processing systems and changes to the way it plans its computer capacity. These changes are designed to correct the problems we identified in our January report. These changes include: installing new equipment to handle odd-lot orders, installing additional automated specialist books to reduce its reliance on slow card printers, adding more specialist trading posts, developing the capacity to handle a 600 million share day by May and a 1 billion share day by 1990, and establishing system performance goals.

The Exchange officials told us that it plans a full scale test of the order processing systems in a 600 million share day

environment on April 30, 1988. We have been invited to observe it. It is particularly important that subsequent tests are designed to demonstrate that not only the Exchange's systems, but also that systems linking it to member firms and other exchanges can process anticipated order volumes.

In response to our recommendation, the Exchange plans to have an independent assessment of its computer operations. On the other hand, SEC officials told us they have no current plans to acquire additional technical resources to independently assess the Exchange's trading systems. However, they said they agreed with the needs for an independent assessment of the trading systems and with the Exchange's plans to contract for such an assessment. They said they plan to review the results of the Exchange's independent assessment, and they believe this review fulfills SEC's regulatory responsibilities. We continue to believe that the SEC need its own capability to evaluate computer systems.

On a related matter, you inquired if the New York Stock Exchange's computer systems can identify basket trades and distinguish between the various types of basket program trading strategies. The Exchange's computer systems have the capability to identify most basket trades, but cannot differentiate among basket trading strategies. The Exchange intends to develop this capability. Now that the SEC has approved the 50 point cut-off rule for index arbitrage, we believe it is important that the

Exchange develop this capacity quickly to effectively enforce the new rule.

CRASH STUDY METHODOLOGICAL DIFFERENCES

Let me turn now to our assessment of the methodological differences among the studies of the effects of program trading on the price volatility of October 19th and 20th.

The Brady Commission set out to describe the events of October 19th and 20th. On the other hand, the SEC and CFTC set out to test for the existence of specific types of program trading effects. For this reason, I would like to explain the differences between the CFTC and SEC studies. Each study group used the same data--that collected from a survey of 16 large firms known to be active futures related program traders in the weeks preceding the crash. As a result, the estimates of total program trading on the 19th and 20th were roughly equivalent. This data on program trading included both straight program selling in the equity markets as well as index arbitrage and portfolio insurance.

The SEC and CFTC studies of program trading had different objectives. A key CFTC objective was to substantiate or refute the so-called "cascade scenario." This might happen when hedging in futures markets sets off a chain reaction of index arbitrage selling in the equity markets which is then followed by endless

rounds of subsequent futures hedging and index arbitrage equity sales, leading to a downward spiral of equity prices. The SEC had a number of objectives--the most important being to identify whether significant program trading activity in equity markets was associated with periods of significant price changes during the market crash period. It is important to emphasize that because of the different study objectives, the conclusions reached by the SEC and CFTC do not necessarily contradict one another.

Both the CFTC and SEC matched the trading activity with price changes occurring in the stock market over particular time intervals. But because of the different questions that the CFTC and SEC were asking of the data, the measure of program trading used for the comparison with the price change data differed considerably.

The CFTC used only program trading data with a direct futures component--index arbitrage and index substitution. The SEC used all program trading data, including straight stock selling. In effect, the CFTC looked for the effects of 37 million shares out of a total of 89 million shares that the survey of 16 firms had identified as program trades on October 19th.

The CFTC contended that the 52 million other shares did not contain a futures component and, therefore, were not relevant for

testing whether the cascade theory was operative on October 19th. SEC officials included the 52 million of equity share sales because they believed the sales were futures related. Their interviews with market participants revealed that many shares were sold directly into equity markets instead of being hedged with futures because futures became prohibitively expensive.

Other differences in study methodologies and the differences of opinion over them are described in my longer statement.

CONCLUSION

Reasonable people may disagree about which of the measurement methodologies and interpretations of data are most appropriate. And because of the acknowledged limitations of the studies of program trading, we will probably never know its precise effects on price behavior of markets during October 19th and 20th.

From the standpoint of seeking solutions to better enable market participants and investors to cope with a major price swing, I am not sure we need to know the precise effects of the new market demands on price volatility. The buying and selling of large groups of stock baskets is a reality of today's markets. Program trading of these baskets is a technique used by institutional portfolio managers who control huge positions. When all these traders want to move in the same direction, either buy or sell,

they are bound to put stress on the markets. The key policy question that must be answered is: what is the best way to manage this stress--try to control it when it becomes a problem or adjust market structures to better deal with it day-to-day.

Progress has been made in some areas to enable the individual markets to better cope with large trading days. However, other changes, such as price limits on stock index futures and the cut off of the NYSE's DOT system for index arbitrage, have not been agreed upon by all of the federal and self regulators. Because these changes have not been coordinated across markets, they have potentially adverse implications for intermarket stability. These uncoordinated changes greatly concern us. Differences of opinion about these matters among the exchanges and federal regulators must be resolved quickly by the President's Working Group. If this does not occur, the disagreements should be dealt with through Congressional action.

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